Reservoir Operations *Study*

navigation
FACT SHEET

TVA

Impact Evaluation on Navigation

The purpose of the study is to determine if changes in TVA's reservoir system operating policies would produce greater overall public value.

Background

TVA is conducting a formal evaluation of its policies for operating the Tennessee River reservoir system, including an analysis of the economic impacts of any potential changes in these policies. Existing policies affect how much reservoir levels fluctuate, when changes in reservoir levels occur, and the amount of water flowing through the reservoir system at different times of the year, depending on rainfall.

The purpose of the study is to determine if changes in TVA's reservoir system operating policies would produce greater overall public value. Technical analyses will be performed to evaluate the impacts of TVA's current policies and the potential impacts of alternatives on a number of resource areas and other issues.

The two-year Reservoir Operations Study (ROS) is scheduled for completion in October 2003.

The impacts on navigation will be evaluated as part of the ROS, and the results will be documented in an Environmental Impact Statement (EIS). TVA will conduct the study in accordance with National Environmental Policy Act (NEPA) requirements.

Potential Impacts

- The Reservoir Operations Study will examine how possible changes to reservoir system operating policies could impact navigation and TVA's statutory navigation requirements.
- About 50 million tons of cargo are shipped on the Tennessee River each year, with about 80 percent of the shipments moving through the lower Ohio River on to the Tennessee River. The cargo commodities and finished products serve a broad range of industries and consumers.
- Because water transportation is the least expensive way to ship bulk commodities, industries are more competitive and all consumers realize savings indirectly. Barge transportation saves consumers approximately $480 million per year, compared with the costs of using traditional overland routes.
- Hazardous navigation conditions can result during periods of lower-than-average rainfall. Water released from the tributary reservoirs to make room for flood control storage in the late summer and fall seasons is used to maintain navigation.
- Changes in operating policies on the tributary reservoirs could result in even shallower water depths that could be inadequate for safe navigation by barges.

Geographic Areas

- Changes in the reservoir system operating system policies could potentially impact the entire Tennessee River system and parts of the Ohio River and lower Mississippi River waterways.
- The TVA Act requires TVA to maintain a nine-foot navigation channel in the Tennessee River from Paducah, Kentucky, to Knoxville, Tennessee. About 150 miles of nine-foot channel is also maintained on tributaries to the Tennessee River.

- Beginning at mile 22 on the Tennessee River, where Kentucky Dam is located, TVA dams control the river's navigation channel. The U.S. Army Corps of Engineers (USACE) uses wicket dams (also called "run of the river" dams) on the Ohio River to provide a navigation channel on the lower Ohio during low-water periods. These wicket dams control the water elevation not only on the lower Ohio but also on the lower 22 miles of the Tennessee River. Thus, while TVA can perform operations to directly control the navigation channel above Kentucky Dam, TVA has less control on the lower 22 miles and must rely on cooperation with the USACE to maintain navigation there.

Scope of Analysis

- Since the release of TVA's last reservoir operation policy EIS, new infrastructure has been constructed or is being constructed on the Tennessee River and Ohio River systems that could be affected by possible operational changes. In addition to the 110- by 600-foot lock now at Kentucky Dam, a 110- by 1,200-foot lock is also being constructed. Two wicket dams are now located on the lower Ohio River. These two dams are being replaced by one lock and dam located at Olmsted, Illinois. TVA and the USACE will examine how operational issues at this new dam affect the analysis of any change in TVA's reservoir system operating policies. Simply put, the new wicket dam requires a tremendous amount of water to fill its 46-mile pool and may be erected and taken down several times during the dry season.
- As part of the study, TVA will look at impacts of potential changes that range from loss of the navigation channel to deepening the channel by two feet.

For More Information

To submit comments or get additional information, members of the public are invited to visit TVA's Web site at www.tva.com, to call toll-free 888-882-7675, to fax TVA at 865-632-3146, or to write to ROS Project Manager David Nye, Tennessee Valley Authority, c/o WT 11A, 400 West Summit Hill Dr., Knoxville, TN 37902.